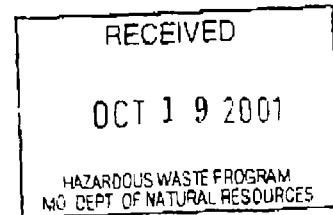


## ST. LOUIS ORDNANCE PLANT

## MEMORANDUM

**To:** Brad Eaton, USACE, Kansas City District  
**From:** Siva Sivalingam, TapanAm Associates, Inc.  
**Date:** October 18, 2001  
**Subject:** PA Score Results and Conclusions



## INTRODUCTION

This Preliminary Assessment/Site Inspection (PA/SI) Report has been prepared by TapanAm Associates, Inc. (TapanAm), under Contract Number DACW 41-94-D-9010, Delivery Order 0002. This document was developed in accordance with the requirements specified in the revised Scope of Work (SOW) dated June 1999, and the modified SOW dated August 16, 2000.

In accordance with the United States Army Corps of Engineers (USACE) SOW, TapanAm conducted a field investigation that produced data to support completion of United States Environmental Protection Agency (USEPA) Preliminary Assessment Score (PAScore) and the production of a PA/SI Report. This site is listed in the EPA's CERLIS database as the "St. Louis (ex) Ordnance Plant" under the identification number of MO8210022465".

## SITE SUMMARY

The Hanley area at the former SLOP is located on the western boundary of the city limits of St. Louis, Missouri. The facility lies approximately three miles west of the Mississippi River and a quarter mile south of the intersection of Interstate 70 and Goodfellow Boulevard. The site address is 4301 N. Goodfellow Boulevard 63120. The latitude and longitude of the southeast fence corner is 38 degrees 41 minutes 50.96517 seconds North and 90 degrees 16 minutes 03.54001 seconds West, respectively. The Missouri State Plane coordinates of the southeast fence corner of the site are 1041720.120 Northing and 886433.283 Easting. The elevation at that point is 561.277 feet above sea level. The site property is bordered by the Job Corps Facility on the west and residential areas are located to the north, west, and southwest. The area to the east of the site was formerly part of the SLOP. This area is presently owned by the General Service Administration. The Sverdrun U.S.

TapanAm Associates, Inc.  
PA Score, Revision 1.0  
October 2001

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40485538

3.0



Superfund

0001

Army Reserve Center located to the south is currently occupied by the 89<sup>th</sup> Regional Support Command (RSC).

The Hanley area is located on a relatively flat terrace, covering 11 acres of the site's 14.7 acres. All of the buildings present in the Hanley area are in a state of poor repair. In addition, the site contains a number of underground rooms, tunnels for service utilities, powder wells, and a storm-water collection system. The Hanley area is located on a relatively flat terrace with elevation ranges from 560 feet to 540 feet above mean sea level (AMSL), National Geodetic Vertical Datum (NGVD), 1929. The site topography slopes steeply down to Goodfellow Boulevard along the east side of the site. More than 60% of the ground surface at the SLOP site is covered by asphalt, concrete, buildings or other impervious materials. The rest of the ground surface is covered with grass and native vegetation. The site terrain slopes toward the east and southeast, and any surface water that leaves the site will eventually drain through the storm/sanitary sewers towards a wastewater treatment facility before discharging into the Mississippi River.

The consistent pattern of climate in St. Louis County consists of cold winters and long, hot summers (Benham, 1979). The moist air from the Gulf of Mexico interacts with drier continental air in the spring and early summer producing heavy rains. The total annual precipitation is 33.8 inches. Thunderstorms occur on about 50 days each year with most occurring in the summer. The prevailing wind is from the south. The average summer and winter temperatures are 77°F and 33°F, respectively. The average relative humidity in mid-afternoon is about 60%. Average seasonal snowfall is 18 inches.

The construction of the SLOP was completed in May 1942. Originally the site was used to manufacture small arms and 105-millimeter shells. The production stopped around 1945. Small arms production began again in 1951 and ended in 1957. The area west of Goodfellow Boulevard was used for explosive production and storage until 1959. In 1959, Hanley Industry, Inc. (Hanley) leased this area for receiving, loading, pressing, and testing of explosives. Hanley operated this site from 1959 through 1979 as a research, development, and manufacturing plant. In 1960, the U.S. Army Reserve Center was built south of the Hanley area and it acquired the Hanley area in 1979. The former SLOP was operated during World War II, the Korean War, and the Vietnam War.

As previously stated, the Hanley Area was used for research, development, manufacture, and testing of various explosives. Most of the buildings were used for loading detonators, primers, and

explosive mixing. Explosives were dried in magazines by leaving cans of explosives exposed to the air and a lead azide reactor was operated in one of the magazines in building 219E. Reportedly, Hanley did not use existing sumps or powder wells for wastewater disposal. There are no specifics on the activities that took place in these buildings.

In 1979, Hanley was required to decontaminate the facilities as part of the lease termination. The extent of decontamination and procedures used were not well documented. Many of the buildings have a "XXX" mark that was typically used to indicate decontamination to verify safety and absence of explosive contamination. The walls in the buildings were reportedly washed down to a height of eight feet above the floor. The wash water was discharged onto the ground outside the buildings. None of the magazines were washed down. Powder wells installed in 1941 received wastewater from buildings and magazines until 1945. These powder wells provided sediment collection before discharge to the sanitary sewer. Hanley was reported to have not used the existing powder wells located on the property.

## SCORING SUMMARY

A PA score for the SLOP site was completed utilizing the PAscore software available from the EPA. Attached are the PA Form, PA Scoresheets and Reference list. An overall score of 71 was calculated for the site. The groundwater pathway scored 1, with a suspected release but there were no targets. The surface water pathway score was not evaluated because the nearest surface water body is over two miles from the site. The soil exposure pathway scored 100 due to a high number of residential targets at adjacent schools and residential properties. The air pathway also scored 100 due to a high primary target population. Additional discussion for each pathway is given below.

### Groundwater Pathway

A score of 1 was calculated for this pathway. This score was based on an observed release to the groundwater, a default target score of 5 (Resources) and a waste characteristics score of 18. Groundwater samples collected during this investigation found detections for cis-1,2-dichloroethene and manganese.

Although there was an observed release to the groundwater, the pathway score is low due to a lack of targets. There are no public, and only 2 private wells, within 2 miles of the site. In addition the private wells are completed in a much deeper aquifer with no hydraulic connectivity to the overburden aquifer directly beneath the site.

### Surface Water Pathway

The surface water pathway score was not evaluated because the closest surface water body (Mississippi River) is over 2 miles from the site.

### Soil Exposure Pathway

A score of 100 was calculated for the soil exposure pathway based on suspected lead and arsenic contamination in surface soils (less than 2 feet) on adjacent residential properties and the Job Corps dormitory property. A waste characteristics score of 18 was calculated, with a target score of 6,480. These generated a resident population threat score of 100 and a nearby population threat score of 2.

## ST. LOUIS ORDNANCE PLANT

The rationale for suspected contamination on 10 residential properties north of the site is the observed contamination in on-site surface soils and the assumption that dry and windy conditions could have transported contaminated dust to these soils at the nearby properties. The same assumptions could be made for the Jobs Corps dormitory within 100 feet of the western site boundary, although the fact that it was formerly part of the facility makes it suspect

**Air Pathway**

A score of 100 was calculated for the air pathway based on a suspected release to the air from the site. A high primary target population (within ¼ mile) of 1,039 people includes nearby residential properties and the Job Corps dormitory. A waste characteristics score of 32 was calculated, with a target score of 10,561.

The occurrence of airborne dust from contaminated site soils is the potential release, although there is currently good vegetative cover onsite making this less likely at this time.

**CONCLUSIONS**

The overall site score of 71 exceeds the EPA threshold of 28.5 for inclusion to the National Priorities List (NPL). However, PA scores are considered a preliminary tool in determining whether further characterization and assessment of a site is needed. Additional information should be collected for the preparation of an HRS to determine whether the site may be a potential viable candidate for the NPL. This score is driven primarily by the assumption of releases to nearby surface soils and air, with a large number of receptors in both cases. The lack of analytical data from off-site soils and air, coupled with the presence of on-site contaminants, require the assumptions of release for the PA score. By remediating site sources and any off-site contaminated soil the score should fall to below 28.5.

PA-Score 2.1 Scoresheets  
ST. LOUIS ORDINANCE PLANT - 06/22/01

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OMB Approval Number: 2050-0095  
Approved for Use Through: 4/95

POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM		IDENTIFICATION State: MO CERCLIS Number: MO8210022465 CERCLIS Discovery Date: unknown	
1. General Site Information			
Name: ST. LOUIS ORDINANCE PLANT		Street Address: 4300 GOODFELLOW BOULEVARD	
City: ST. LOUIS	State: MO	Zip Code: 63120	County: ST. LOUIS Co. Code: 189 Cong. Dist: 1
Latitude: 38 41' 50.9"	Longitude: 90 16' 3.5"	Approx. Area of Site: 15 acres	Status of Site: Inactive
2. Owner/Operator Information			
Owner: GENERAL SERVICES ADMINISTRATION		Operator: SVERDRUP ARMY RESERVE CENTER	
Street Address:		Street Address:	
City:		City:	
State:	Zip Code:	Telephone:	State: Zip Code: Telephone:
Type of Ownership: Federal Agency		How Initially Identified: Citizen Complaint	

PA-Score 2.1 Scoresheets  
ST. LOUIS ORDINANCE PLANT - 06/22/01

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POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM		IDENTIFICATION	
		State: MO	CERCLIS Number: MO8210022465
		CERCLIS Discovery Date: Unknown	
3. Site Evaluator Information			
Name of Evaluator: Larry Baer		Agency/Organization: TAPANAH ASSOCIATES, INC.	Date Prepared: 6/22/01
Street Address: 201 W. 135TH STREET, SUITE 100		City: KANSAS CITY	State: MO
Name of EPA or State Agency Contact:		Telephone:	
Street Address:		City:	State:
4. Site Disposition (for EPA use only)			
Emergency Response/Removal Assessment Recommendation:	CERCLIS Recommendation:	Signature:	
Date:	Date:	Name:	
		Position:	

PA-Score 2.1 Scoresheets  
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POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM		IDENTIFICATION State: MO CERCLIS Number: MO8210022465 CERCLIS Discovery Date: unknown	
5. General Site Characteristics			
Predominant Land Uses Within 1 Mile of Site: Commercial Residential OOO	Site Setting: Urban	Years of Operation: Beginning Year: 1942 Ending Year: 1979	
Type of Site Operations: OOO Other Federal Facility: EXPLOSIVES RESEARCH, TESTING		Waste Generated: Onsite Waste Deposition Authorized By: Former Owner Waste Accessible to the Public No Distance to Nearest Dwelling, School, or Workplace: 100 Feet	
6. Waste Characteristics Information			
Source Type Contaminated soil	Quantity 4.70e+03 cu.ft. V	Tier General Types of Waste: Metals Organics Explosives Other: ASBESTOS	Physical State of Waste as Deposited Solid Liquid Sludge Powder
Tier Legend C = Constituent W = Wastestream V = Volume A = Area			



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POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM		IDENTIFICATION State: MO CERCLIS Number: MO8210022465 CERCLIS Discovery Date: unknown	
7. Ground Water Pathway			
Is Ground Water Used for Drinking Water Within 4 Miles: No	Is There a Suspected Release to Ground Water: Yes	List Secondary Target Population Served by Ground Water Withdrawn From:	
Type of Ground Water Wells Within 4 Miles:	Have Primary Target Drinking Water Wells Been Identified: No	0 - 1/4 Mile	0
		>1/4 - 1/2 Mile	0
		>1/2 - 1 Mile	0
		>1 - 2 Miles	0
Depth to Shallowest Aquifer: 0 Feet		>2 - 3 Miles	0
Karst Terrain/Aquifer Present: No	Nearest Designated Wellhead Protection Area: None within 4 Miles	>3 - 4 Miles	0
		Total	0

PA-Score 2.1 Scoresheets  
ST. LOUIS ORDINANCE PLANT - 06/22/101

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POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM		IDENTIFICATION	
		State: MO	CERCLIS Number: MO8210022465
		CERCLIS Discovery Date: unknown	
8. Surface Water Pathway		Part 1 of 4	
Type of Surface Water Draining Site and 15 Miles Downstream:	Shortest Overland Distance From Any Source to Surface Water:  13000 Feet 2.5 Miles		
Is there a Suspected Release to Surface Waters: No	Site is Located in: > 500 yr floodplain		
B. Surface Water Pathway		Part 2 of 4	
Drinking Water Intakes Along the Surface Water Migration Path: No			
Have Primary Target Drinking Water Intakes Been Identified: No			
Secondary Target Drinking Water Intakes: None			

PA-Score 2.1 Scoresheets  
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POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM	IDENTIFICATION
	State: MO CERCLIS Number: MO8210022465
	CERCLIS Discovery Date: unknown
B. Surface Water Pathway Part 3 of 4	
Fisheries Located Along the Surface Water Migration Path: No	
Have Primary Target Fisheries Been Identified: No	
Secondary Target Fisheries: None	
B. Surface Water Pathway Part 4 of 4	
Wetlands Located Along the Surface Water Migration Path? (y/n) No	
Have Primary Target Wetlands Been Identified? (y/n) No	
Secondary Target Wetlands: None	
Other Sensitive Environments Along the Surface Water Migration Path: No	
Have Primary Target Sensitive Environments Been Identified: No	
Secondary Target Sensitive Environments: None	

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ST. LOUIS ORDINANCE PLANT - 06/22/101

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<p>POTENTIAL HAZARDOUS WASTE SITE PRELIMINARY ASSESSMENT FORM</p>	<p>IDENTIFICATION</p> <hr/> <p>State: MO CERCLIS Number: MO8210022465</p> <hr/> <p>CERCLIS Discovery Date: unknown</p>																
<p>9. Soil Exposure Pathway</p>																	
<p>Are People Occupying Residences or Attending School or Daycare on or Within 200 Feet of Areas of Known or Suspected Contamination: Yes Total Resident Population: 642</p>	<p>Number of Workers Onsite: 1 - 100</p>																
<p>Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination: No</p>																	
<p>10. Air Pathway</p>																	
<p>Total Population on or within:</p> <table border="0"> <tr> <td>Onsite</td> <td>0</td> </tr> <tr> <td>0 - 1/4 Mile</td> <td>1039</td> </tr> <tr> <td>&gt;1/4 - 1/2 Mile</td> <td>3117</td> </tr> <tr> <td>&gt;1/2 - 1 Mile</td> <td>12494</td> </tr> <tr> <td>&gt;1 - 2 Miles</td> <td>49976</td> </tr> <tr> <td>&gt;2 - 3 Miles</td> <td>83222</td> </tr> <tr> <td>&gt;3 - 4 Miles</td> <td>116548</td> </tr> <tr> <td>Total</td> <td>266396</td> </tr> </table>	Onsite	0	0 - 1/4 Mile	1039	>1/4 - 1/2 Mile	3117	>1/2 - 1 Mile	12494	>1 - 2 Miles	49976	>2 - 3 Miles	83222	>3 - 4 Miles	116548	Total	266396	<p>Is There a Suspected Release to Air: Yes</p> <hr/> <p>Wetlands Located Within 4 Miles of the Site: No</p> <hr/> <p>Other Sensitive Environments Located Within 4 Miles of the Site: No</p>
Onsite	0																
0 - 1/4 Mile	1039																
>1/4 - 1/2 Mile	3117																
>1/2 - 1 Mile	12494																
>1 - 2 Miles	49976																
>2 - 3 Miles	83222																
>3 - 4 Miles	116548																
Total	266396																
<p>Sensitive Environments Within 1/2 Mile of the Site: None</p>																	

OMB Approval Number: 2050-0095  
Approved for Use Through: 4/95

H H L I I I I I I I I I I

Site Name: ST. LOUIS ORDINANCE PLANT  
CERCLIS ID No.: MO8210022465  
Street Address: 4300 GOODFELLOW BOULEVARD  
City/State/Zip: ST. LOUIS, MO 63120

Investigator: Larry Baer  
Agency/Organization: TAPANAM ASSOCIATES, INC.  
Street Address: 201 W. 135TH STREET, SUITE 100  
City/State: KANSAS CITY, MO

Date: 6/22/01

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## WASTE CHARACTERISTICS

## Waste Characteristics (WC) Calculations:

1 CONTAMINATED SOIL	Contaminated soil	WC value	maximum
Area	1.47E+01 acres	1.88E+01	1.88E+01

\*\* Only First WC Page Is Printed \*\* | Waste Characteristics Score: WC = 18

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Ground Water Pathway Criteria List Suspected Release	
Are sources poorly contained? (y/n/u)	Y
Is the source a type likely to contribute to ground water contamination (e.g., wet lagoon)? (y/n/u)	Y
Is waste quantity particularly large? (y/n/u)	N
Is precipitation heavy? (y/n/u)	N
Is the infiltration rate high? (y/n/u)	N
Is the site located in an area of karst terrain? (y/n)	N
Is the subsurface highly permeable or conductive? (y/n/u)	N
Is drinking water drawn from a shallow aquifer? (y/n/u)	N
Are suspected contaminants highly mobile in ground water? (y/n/u)	N
Does analytical or circumstantial evidence suggest ground water contamination? (y/n/u)	Y
Other criteria? (y/n)	N
SUSPECTED RELEASE? (y/n)	
Y	
Summarize the rationale for Suspected Release:	
Analytical data has shown elevated levels of manganese and cis-1,2-dichloroethene in groundwater from site monitoring wells.	

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Ground Water Pathway Criteria List Primary Targets	
Is any drinking water well nearby? (y/n/u)	N
Has any nearby drinking water well been closed? (y/n/u)	N
Has any nearby drinking water well user reported foul-tasting or foul-smelling water? (y/n/u)	N
Does any nearby well have a large drawdown/high production rate? (y/n/u)	N
Is any drinking water well located between the site and other wells that are suspected to be exposed to a hazardous substance? (y/n/u)	N
Does analytical or circumstantial evidence suggest contamination at a drinking water well? (y/n/u)	N
Does any drinking water well warrant sampling? (y/n/u)	N
Other criteria? (y/n)	N
PRIMARY TARGET(S) IDENTIFIED? (y/n)	
N	
Summarize the rationale for Primary Targets:	
<p>No public wells, and only 2 private wells, within 4 miles of site. The private wells are completed at depth in an aquifer that is not hydraulically connected to the overburden aquifer beneath the site.</p>	



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## GROUND WATER PATHWAY SCORESHEETS

Pathway Characteristics			Ref.
Do you suspect a release? (y/n)	Yes		1
Is the site located in karst terrain? (y/n)	No		2
Depth to aquifer (feet):	0		1
Distance to the nearest drinking water well (feet):	0		3, 4
LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	References
1. SUSPECTED RELEASE	550		1
2. NO SUSPECTED RELEASE		0	
LR =	550	0	

## Targets

TARGETS	Suspected Release	No Suspected Release	References
3. PRIMARY TARGET POPULATION 0 person(s)	0		3, 4
4. SECONDARY TARGET POPULATION Are any wells part of a blended system? (y/n) N	0	0	
5. NEAREST WELL	0	0	
6. WELLHEAD PROTECTION AREA None within 4 Miles	0	0	
7. RESOURCES	5	0	
T =	5	0	

## WASTE CHARACTERISTICS

WC = 18 0

## GROUND WATER PATHWAY SCORE:

1

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608 Ground Water Target Populations

Primary Target Population Drinking Water Well ID	Dist. (miles)	Population Served	Reference	Value
None				
*** Note : Maximum of 5 Wells Are Printed ***				Total

Secondary Target Population Distance Categories	Population Served	Reference	Value
0 to 1/4 mile	0		0
Greater than 1/4 to 1/2 mile	0		0
Greater than 1/2 to 1 mile	0		0
Greater than 1 to 2 miles	0		0
Greater than 2 to 3 miles	0		0
Greater than 3 to 4 miles	0		0
Total			0

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Apportionment Documentation for a Blended System



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Surface Water Pathway Criteria List Suspected Release	
Is surface water nearby? (y/n/u)	N
Is waste quantity particularly large? (y/n/u)	N
Is the drainage area large? (y/n/u)	N
Is rainfall heavy? (y/n/u)	N
Is the infiltration rate low? (y/n/u)	Y
Are sources poorly contained or prone to runoff or flooding? (y/n/u)	Y
Is a runoff route well defined(e.g.ditch/channel to surf.water)? (y/n/u)	Y
Is vegetation stressed along the probable runoff path? (y/n/u)	N
Are sediments or water unnaturally discolored? (y/n/u)	N
Is wildlife unnaturally absent? (y/n/u)	N
Has deposition of waste into surface water been observed? (y/n/u)	N
Is ground water discharge to surface water likely? (y/n/u)	N
Does analytical/circumstantial evidence suggest S.W. contam? (y/n/u)	N
Other criteria? (y/n)	N
SUSPECTED RELEASE? (y/n)	
N	
Summarize the rationale for Suspected Release:	
There is no release since the nearest surface water body is greater than 2 miles from the site.	

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Surface Water Pathway Criteria List	
Primary Targets	
Is any target nearby? (y/n/u)	If yes: N
Drinking water intake	
Fishery	
Sensitive environment	
Has any intake, fishery, or recreational area been closed? (y/n/u)	N
Does analytical or circumstantial evidence suggest surface water contamination at or downstream of a target? (y/n/u)	N
Does any target warrant sampling? (y/n/u)	If yes: N
Drinking water intake	
Fishery	
Sensitive environment	
Other criteria? (y/n)	N
PRIMARY INTAKE(S) IDENTIFIED? (y/n)	
Summarize the rationale for Primary Intakes:	
continued -----	

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## SURFACE WATER PATHWAY SCORESHEETS

Pathway Characteristics			Ref.
Do you suspect a release? (y/n)		No	1
Distance to surface water (feet):		13000	1, 6
Flood frequency (years):		>500	1
What is the downstream distance (miles) to:			
a. the nearest drinking water intake?		0.0	
b. the nearest fishery?		0.0	
c. the nearest sensitive environment?		0.0	
LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	References
1. SUSPECTED RELEASE	0		
2. NO SUSPECTED RELEASE		100	1, 6
LR =	0	100	

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continued -----

Other criteria? (y/n)	N

PRIMARY FISHERY(IES) IDENTIFIED? (y/n)

**Summarize the rationale for Primary Fisheries:**

Other criteria? (y/n)	N
-----------------------	---

PRIMARY SENSITIVE ENVIRONMENT(S) IDENTIFIED? (y/n)

**Summarize the rationale for Primary Sensitive Environments:**

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## Drinking Water Threat Targets

TARGETS	Suspected Release	No Suspected Release	References
3. Determine the water body type, flow (if applicable), and number of people served by each drinking water intake.			
4. PRIMARY TARGET POPULATION 0 person(s)	0		
5. SECONDARY TARGET POPULATION Are any intakes part of a blended system? (y/n): N	0	0	
6. NEAREST INTAKE	0	0	
7. RESOURCES	0	0	
T =	0	0	

## Drinking Water Threat Target Populations

Intake Name	Primary (y/n)	Water Body Type/Flow	Population Served	Ref.	Value
None					
Total Primary Target Population Value					0
Total Secondary Target Population Value					0

\*\*\* Note : Maximum of 6 Intakes Are Printed \*\*\*



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Apportionment Documentation for a Blended System



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## Human Food Chain Threat Targets

TARGETS	Suspected Release	No Suspected Release	References
8. Determine the water body type and flow for each fishery within the target limit.			
9. PRIMARY FISHERIES	0		
10. SECONDARY FISHERIES	0	0	
T =	0	0	

## Human Food Chain Threat Targets

Fishery Name	Primary (y/n)	Water Body Type/Flow	Ref.	Value
None				
Total Primary Fisheries Value				0
Total Secondary Fisheries Value				0

\*\*\* Note : Maximum of 6 Fisheries Are Printed \*\*\*

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## Environmental Threat Targets

TARGETS	Suspected Release	No Suspected Release	References
11. Determine the water body type and flow (if applicable) for each sensitive environment.			
12. PRIMARY SENSITIVE ENVIRONMENTS	0		
13. SECONDARY SENSITIVE ENVIRONS.	0	0	
T =	0	0	

## Environmental Threat Targets

Sensitive Environment Name	Primary (y/n)	Water Body Type/Flow	Ref.	Value
None				
Total Primary Sensitive Environments Value				0
Total Secondary Sensitive Environments Value				0
*** Note: Maximum of 6 Sensitive Environments Are Printed ***				

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## Surface Water Pathway Threat Scores

Threat	Likelihood of Release(LR) Score	Targets(T) Score	Pathway Waste Characteristics (WC) Score	Threat Score LR x T x WC / 82,500
Drinking Water	100	0	18	0
Human Food Chain	100	0	18	0
Environmental	100	0	18	0
SURFACE WATER PATHWAY SCORE:				0

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Soil Exposure Pathway Criteria List Resident Population	
Is any residence, school, or daycare facility on or within 200 feet of an area of suspected contamination? (y/n/u)	Y
Is any residence, school, or daycare facility located on adjacent land previously owned or leased by the site owner/operator? (y/n/u)	Y
Is there a migration route that might spread hazardous substances near residences, schools, or daycare facilities? (y/n/u)	Y
Have onsite or adjacent residents or students reported adverse health effects, exclusive of apparent drinking water or air contamination problems? (y/n/u)	N
Does any neighboring property warrant sampling? (y/n/u)	Y
Other criteria? (y/n)	N
RESIDENT POPULATION IDENTIFIED? (y/n)	Y
Summarize the rationale for Resident Population:	
Four on-site workers, 604 students in Job Corps dormitory that is less than 100 feet from the site boundary and on land formerly part of SLOP, and 38 residents within 200 feet of the site boundary. Potential of contaminated soil transported by wind from site.	

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## SOIL EXPOSURE PATHWAY SCORESHEETS

Pathway Characteristics	Ref.
Do any people live on or within 200 ft of areas of suspected contamination? (y/n)	Yes 1
Do any people attend school or daycare on or within 200 ft of areas of suspected contamination? (y/n)	Yes 1
Is the facility active? (y/n):	No 1

LIKELIHOOD OF EXPOSURE	Suspected Contamination	References
1. SUSPECTED CONTAMINATION LE =	550	1

## Targets

2. RESIDENT POPULATION 38 resident(s) 604 school/daycare student(s)	6420	1, 5, 6
3. RESIDENT INDIVIDUAL	50	
4. WORKERS 1 - 100	5	
5. TERRES. SENSITIVE ENVIRONMENTS	0	
6. RESOURCES	5	
T =	6480	

## WASTE CHARACTERISTICS

WC = 18

RESIDENT POPULATION THREAT SCORE: 100

NEARBY POPULATION THREAT SCORE: 2

Population Within 1 Mile: 10,001 - 50,000

SOIL EXPOSURE PATHWAY SCORE: 100

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## Soil Exposure Pathway Terrestrial Sensitive Environments

Terrestrial Sensitive Environment Name	Reference	Value
None	5, 6	
Total Terrestrial Sensitive Environments Value		
*** Note : Maximum of 7 Sensitive Environments Are Printed ***		

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Air Pathway Criteria List Suspected Release	
Are odors currently reported? (y/n/u)	N
Has release of a hazardous substance to the air been directly observed? (y/n/u)	N
Are there reports of adverse health effects (e.g., headaches, nausea, dizziness) potentially resulting from migration of hazardous substances through the air? (y/n/u)	N
Does analytical/circumstantial evidence suggest release to air? (y/n/u)	Y
Other criteria? (y/n)	N
SUSPECTED RELEASE? (y/n)	
Y	
Summarize the rationale for Suspected Release:	
Lead contaminated soil that could be caught up by winds and transported by air.	



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## AIR PATHWAY SCORESHEETS

Pathway Characteristics			Ref.
Do you suspect a release? (y/n)	Yes		1
Distance to the nearest individual (feet):	0		1
LIKELIHOOD OF RELEASE	Suspected Release	No Suspected Release	References
1. SUSPECTED RELEASE	550		1
2. NO SUSPECTED RELEASE		0	
LR =	550	0	

## Targets

TARGETS	Suspected Release	No Suspected Release	References
3. PRIMARY TARGET POPULATION 1039 person(s)	10390		1, 5, 6, 7
4. SECONDARY TARGET POPULATION	116	0	
5. NEAREST INDIVIDUAL	50	0	
6. PRIMARY SENSITIVE ENVIRONS.	0		
7. SECONDARY SENSITIVE ENVIRONS.	0	0	
8. RESOURCES	5	0	
T =	10561	0	

## WASTE CHARACTERISTICS

WC =	32	0
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## AIR PATHWAY SCORE:

100
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## Air Pathway Secondary Target Populations

Distance Categories	Population	References	Value
Onsite	N.A.		0
Greater than 0 to 1/4 mile	N.A.		0
Greater than 1/4 to 1/2 mile	3117	7	28
Greater than 1/2 to 1 mile	12494	7	26
Greater than 1 to 2 miles	49976	7	27
Greater than 2 to 3 miles	83222	7	12
Greater than 3 to 4 miles	116548	7	23
Total Secondary Population Value			116

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## Air Pathway Primary Sensitive Environments

Sensitive Environment Name	Reference	Value
None	5, 6	
Total Primary Sensitive Environments Value		

\*\*\* Note : Maximum of 7 Sensitive Environments Are Printed\*\*\*

## Air Pathway Secondary Sensitive Environments

Sensitive Environment Name	Distance	Reference	Value
None		5, 6	
Total Secondary Sensitive Environments Value			

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SITE SCORE CALCULATION	SCORE
GROUND WATER PATHWAY SCORE:	1
SURFACE WATER PATHWAY SCORE:	0
SOIL EXPOSURE PATHWAY SCORE:	100
AIR PATHWAY SCORE:	100
SITE SCORE:	71

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## SUMMARY

1. Is there a high possibility of a threat to any nearby drinking water well(s) by migration of a hazardous substance in ground water? No

If yes, identify the well(s).

If yes, how many people are served by the threatened well(s)? 0

2. Is there a high possibility of a threat to any of the following by hazardous substance migration in surface water?

A. Drinking water intake No  
B. Fishery No  
C. Sensitive environment (wetland, critical habitat, others) No

If yes, identify the target(s).

3. Is there a high possibility of an area of surficial contamination within 200 feet of any residence, school, or daycare facility? Yes

If yes, identify the properties and estimate the associated population(s)  
Job Corps dormitory, 604 students; 10 residences,

4. Are there public health concerns at this site that are not addressed by PA scoring considerations? No

If yes, explain:

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## REFERENCE LIST

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